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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,767	04/16/2004	Mingyan Liu	4004-441	8731

30565 7590 04/05/2007  
WOODARD, EMHARDT, MORIARTY, MCNETT & HENRY LLP  
111 MONUMENT CIRCLE, SUITE 3700  
INDIANAPOLIS, IN 46204-5137

EXAMINER

PREBILIC, PAUL B

ART UNIT	PAPER NUMBER
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3738

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/825,767		LIU ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Paul B. Prebilic		3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-18, 20 and 22-40 is/are pending in the application.
- 4a) Of the above claim(s) 25-30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-24 is/are allowed.
- 6) ☒ Claim(s) 15-18, 20 and 25-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/20/04</u> .   | 6) <input type="checkbox"/> Other: _____                          |

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The status inquiry filed September 21, 2006 is noted. The Applicant's Representative should have received a telephone call from Customer Service within a month of this date. If that did not happen, the Examiner regrets any inconvenience that this may have caused the Applicant.

***Information Disclosure Statement***

With regard to the information disclosure statement filed July 20, 2004, the foreign language references could only be considered to the extent possible without a translation or concise explanation. These references have been considered only to the extent possible even though they have been initialed.

***Claim Objections***

Claims 15, 35, and 36 are objected to because of the following informalities:

With regard to claim 15, line 16, "the intersomatic space" lacks antecedent basis from earlier in the claim. The Examiner suggests changing "the" to "an" in order to overcome this objection.

With regard to claim 35, on line 1, "the cutting head" lacks antecedent basis.

With regard to claim 36, line 1, "the cutting teeth" lack antecedent basis. It may be that claim 36 was supposed to depend upon claim 35 instead.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 25 to 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 25 to 30 are dependent upon cancelled claim 19. Since their scopes cannot be determined they will not be evaluated on their merits.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-17, 20, 31-33, 35, 38, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Steffee (EP 0646366). Steffee anticipates the claim language where:

- the proximal handle is the handle (84) of Steffee
- the shaft as claimed is the shaft (118)
- the first non-cutting portion as claimed is the small diameter portion (110)
- the cutting portion as claimed is the spinal implant (10)
- the second non-cutting portion as claimed is the extension (136); see

Figures 1 to 12 and column 2, line 35 et seq.

With regard to claim 16, the pair of stops corresponds to the top half and bottom half of the end (104), respectively, that could bear against the corresponding vertebrae proximate thereto.

With regard to claim 20, the cutting as claimed is bone when the teeth cut into the vertebra upon rotation thereof.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18, 34, 37, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steffee (EP 0646366) in view of Brantigan (US 5,425,772). Steffee meets the claim language as explained in the Section 102 rejection *supra* but fails to disclose a trapezoidally shaped implant or cutting portion as claimed. However, Brantigan teaches that it was known to use trapezoidally shaped implants in the same location within the art; see Figure 10 and the front page of the patent. Therefore, it is the Examiner's position that it would have been obvious to utilize a trapezoidally shaped implant with Steffee's tool for the same reasons that Brantigan utilizes the same or to better match and repair the defect site.

Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steffee (EP 0646366) in view of Kohrs et al (US 5,609,636). Steffee meets the claim language except for the use of oblique angled teeth as claimed. However, Kohrs teaches that it was known to utilized obliquely angled teeth in similar implants; see Figures 18 and 19. Therefore, it is the Examiner's position that it would have been obvious to utilize oblique

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teeth on the implant of Kohrs for the same reasons that Kohrs utilizes the same or in order to enable insertion and removal by the twisting motion of a screw.

***Allowable Subject Matter***

Claims 22 to 24 are allowed over the prior art of record.

***Conclusion***

Applicant should specifically point out the support for any amendments made to the disclosure, including the claims (MPEP 714.02 and 2163.06). Due to the procedure outlined in MPEP 2163.06 for interpreting claims, it is noted that other art may be applicable under 35 USC 102 of 35 USC 103(a) once the aforementioned issue(s) is/are addressed.

Applicant is respectfully requested to provide a list of all copending applications that set forth similar subject matter to the present claims. A copy of such copending claims is respectfully requested in response to this Office action if the application is not stored in image format (i.e. the IFW system) or published.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Paul B. Prebilic whose telephone number is (571) 272-4758. He can normally be reached on 6:30-5:00 M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Prebilic  
Primary Examiner  
Art Unit 3738